#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-004540 Address: 333 Burma Road **Date Inspected:** 04-Nov-2008

City: Oakland, CA 94607

**OSM Arrival Time:** 1430 **Project Name:** SAS Superstructure **OSM Departure Time:** 2230 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** N/A **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A Yes N/A **Qualified Welders:** No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** OBG

## **Summary of Items Observed:**

On this day Caltrans Assurance Inspector (QA) Larry Viars was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

## Assembly Bay 2:

QA performed Phased Array Ultrasonic Testing (PAUT) after Caltrans NDE technicians performed the preliminary scan with conventional Ultrasonic Testing (UT) in the tacked areas of the Partial Joint Penetration (PJP) welds joining u-ribs to deck plates. This QA inspector performed PAUT on DP243-001 in the areas that exhibited crack like indications with conventional UT and PAUT of repair areas for DP109-002. This QA inspector recorded and gave information of repair PAUT for DP109-002 to Mark Wright. PAUT results were not recorded for DP243-001 because PAUT was not completed. Below is a summary of results of PAUT testing performed this night.

DP-109-002: (PAUT) Repair 1

Weld# 1 – 5 tacks PAUT'ed – 0 indications found noncompliant Weld# 2 - 3 tacks PAUT'ed - 0 indications found noncompliant Weld# 3 – 4 tacks PAUT'ed – 0 indications found noncompliant Weld# 4 - 4 tacks PAUT'ed - 0 indications found noncompliant Weld# 5 – 3 tacks PAUT'ed – 0 indications found noncompliant Weld# 6 – 5 tacks PAUT'ed – 0 indications found noncompliant

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Weld# 7 – 4 tacks PAUT'ed – 0 indications found noncompliant
Weld# 8 – 4 tacks PAUT'ed – 0 indications found noncompliant
DP-243-001: (PAUT) Initial
Weld# 2 - 1 tack PAUT'ed - 0 indications found noncompliant
Weld# 3 - 1 tack PAUT'ed - 0 indications found noncompliant
Weld# 4 – 1 tack PAUT'ed – 0 indication found noncompliant
Weld# 5 - 1 tack PAUT'ed - 1 indication found noncompliant
Weld# 6 – 3 tacks PAUT'ed – 2 indications found noncompliant
Weld# 8 – 3 tacks PAUT'ed – 1 indications found noncompliant
Weld# 9 - 1 tack PAUT'ed - 0 indications found noncompliant
Weld# 10 - 2 tacks PAUT'ed - 0 indications found noncompliant
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NOTE: Phased Array testing was performed in accordance with specification, UT 04-012024.

No other observations were made.

#### **Summary of Conversations:**

Only general conversations between Caltrans QA and QC occurred this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Peter Dautermann 150 0219 9593, who represents the Office of Structural Materials for your project.

Inspected By:	Viars,Larry	Quality Assurance Inspector
Reviewed By:	Wright,Mark	QA Reviewer